

WHAT IS CLAIMED IS:

1. A storage controller for receiving a data input/output request from an information processor and reading or writing data from or in a hard disk drive in accordance with the data input/output request, comprising:

a circuit board provided with a nonvolatile memory functioning as a cache memory for storing the data to be read from or written in the hard disk drive; and

a circuit board setting portion to which the circuit board is removably set; wherein

the circuit board is provided with a removal information output circuit for outputting circuit-board removal information showing that the circuit board is removed from the circuit board setting portion and

a data erase circuit for erasing the data stored in the nonvolatile memory when the circuit board removal information is output from the removal information output circuit.

2. The storage controller according to claim 1, wherein

the data erase circuit erases the data stored in a predetermined range of the nonvolatile memory when the circuit board removal information is output from the removal information output circuit.

3. The storage controller according to claim 2, wherein

the circuit board is provided with an erasing-range storage circuit for storing a first address and a second address in the address space of the nonvolatile memory, and

the data erase circuit erases the data stored in the range by erasing the data stored in the range between the first address and the second address.

4. The storage controller according to claim 1, wherein

the data erase circuit erases the data stored in the nonvolatile memory by rewriting the data stored in the nonvolatile memory to other data.

5. The storage controller according to claim 4, wherein

the circuit board is provided with a rewritten data storage circuit for storing the other data, and

the data erase circuit erases the data stored in the nonvolatile memory by rewriting the data stored in the nonvolatile memory to the other data stored in the rewritten data storage circuit when the circuit board removal information is output from the removal information output circuit.

6. The storage controller according to claim 1, wherein

the nonvolatile memory has a function for erasing the data stored in the nonvolatile memory when a memory-erasing-request signal for erasing the data

stored in the nonvolatile memory is input, and

the data erase circuit erases the data stored in the nonvolatile memory by inputting the memory-erasing-request signal to the nonvolatile memory when the circuit board removal information is output from the removal information output circuit.

7. A control method of a storage controller for receiving a data input/output request from an information processor and reading or writing data from or in a hard disk drive in accordance with the data input/output request and provided with a circuit board including a nonvolatile memory functioning as a cache memory for storing the data to be read from or written in the hard disk drive and a circuit board setting portion to which the circuit board is removably set, in which the circuit board is provided with a removal information output circuit for outputting circuit board removal information showing that the circuit board is removed from the circuit board setting portion, comprising:

a step of erasing the data stored in the nonvolatile memory when the circuit board removal information is output from the removal information output circuit.

8. The control method of a storage controller according to claim 7, wherein

the data stored in a predetermined range of the nonvolatile memory is erased when the circuit board

removal information is output from the removal information output circuit.

9. The control method of a storage controller according to claim 8, wherein

the circuit board is provided with an erasing range storage circuit for storing a first address and a second address in the address space of the nonvolatile memory, and

the data stored in the range is erased by erasing the data stored in the range between the first address and the second address.

10. The control method of a storage controller according to claim 7, wherein

the data stored in the nonvolatile memory is erased by rewriting the data stored in the nonvolatile memory to other data.

11. The control method of a storage controller according to claim 10, wherein

the circuit board is provided with a rewritten data storage circuit for storing the other data, and

the data stored in the nonvolatile memory is erased by rewriting the data stored in the nonvolatile memory to the other data stored in the rewritten data storage circuit.

12. The control method of a storage controller according to claim 7, wherein

the nonvolatile memory has a function for

erasing the data stored in the nonvolatile memory when a memory erasing request signal for erasing the data stored in the nonvolatile memory is input, and

the data stored in the nonvolatile memory is erased by inputting the memory-erasing-request signal to the nonvolatile memory.

13. A storage controller comprising:

a first circuit board on which a channel control portion for receiving a data input/output request from an information processor and outputting an I/O request corresponding to the data input/output request is formed;

a second circuit board on which a shared memory in which the I/O request is stored is formed;

a third circuit board on which a disk control portion for reading or writing data from or in a hard disk drive in accordance with the I/O request stored in the shared memory is formed;

a fourth circuit board having a nonvolatile memory functioning as a cache memory for storing the data transferred between the channel control portion and the disk control portion and stored in the hard disk drive; and

a circuit board setting portion to which the first circuit board, the second circuit board, the third circuit board, and the fourth circuit board are removably set; wherein

the fourth circuit board is provided with

a removal information output circuit for outputting circuit board removal information showing that the fourth circuit board is removed from the circuit board setting portion, and

a data erase circuit for erasing the data stored in the nonvolatile memory when the circuit board removal information is output from the removal information output circuit.